

Iowa Department of Public Health



Obstetrical Care in Iowa:

A Report on Health Care Access to the Iowa State Legislature – Year 2018

Iowa Department of Public Health, Bureau of Family Health

- January 2018

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Introduction

This report has been prepared annually in response to a 1997 mandate that amended Iowa Code 135.11, Section 16 (2015 Iowa Code), to require:

16. Consult with the office of statewide clinical education programs at the university of Iowa college of medicine and annually submit a report to the general assembly by January 15 verifying the number of physicians in active practice in Iowa by county who are engaged in providing obstetrical care. To the extent data are readily available, the report shall include information concerning the number of deliveries per year by specialty and county, the age of physicians performing deliveries, and the number of current year graduates of the university of Iowa college of medicine and the Des Moines university — osteopathic medical center entering into residency programs in obstetrics, gynecology, and family practice. The report may include additional data relating to access to obstetrical services that may be available.

Report to the 2018 Legislature

The Bureau of Family Health (BFH), Iowa Department of Public Health (IDPH), respectfully submits this report in response to the legislative mandate. The data summarized in this report provide an overview of the obstetrical workforce in Iowa for the calendar years 2012 through 2016.

Revisions Reflected in Current Report:

In past reports, workforce information was based on all licensed physicians and advanced nurse practitioners in the state. Using this previous method, it is likely that the number and percent of providers delivering babies were overstated. In addition, the previous method did not distinguish physicians by their specialties.

To remedy these limitations, the current analysis used birth certificate data to generate the number and percent of licensed providers actually performing deliveries in our state. Birth certificate data were linked to data from the [Iowa Health Professions Tracking Center](#) (IHPTC) to obtain demographic and physician specialty information.

Definitions:

The categories of providers who perform deliveries and who are included in this report are defined as follows:

- An obstetrician/gynecologist physician has either an MD or DO degree and has completed a four-year obstetrics/gynecology residency. This specialty is devoted to medical and surgical care to women and has particular expertise in pregnancy, childbirth and disorders of the reproductive system.
- A family medicine physician has either an MD or DO degree and has completed a three-year family medicine residency. This specialty is devoted to comprehensive care for people of all ages. Often family medicine physicians do not perform surgical deliveries (cesarean sections.)
- An ARNP/CNM (Advanced Registered Nurse Practitioner/Certified Nurse Midwife) is defined as a registered nurse who has completed a midwifery education program and has passed a national certification examination. CNMs tend to care for low-risk pregnant women. Most have a

physician as back up if complications arise. CNMs may perform low forceps deliveries and vacuum extractions.

- A resident is a physician (one who holds the degree of MD or DO) who practices medicine usually in a hospital or clinic under the direct or indirect supervision of an attending physician. Successful completion of a residency program is a requirement to obtaining an unrestricted license to practice medicine in many jurisdictions.

National Data¹

- According to Rayburn² and colleagues (2012), based on 2010 data, there were 5.4 obstetricians /gynecologists per 10,000 women of reproductive age (WRA) in the United States.
- Based on the Rayburn report, Iowa was tied for 46th of 50 states, with 4.2 obstetricians /gynecologists per 10,000 WRA.

2016 Iowa Population and Provider Information

Following are select population estimates for the state of Iowa, calendar year 2016:

- Estimated total Iowa population: 3,134,693 ([Iowa Quick Facts](#))
- Women of Reproductive Age (WRA), 15-44: 589,319 (*US Census Bureau*)
- Based on Iowa birth certificate data – the number of physicians that delivered an infant in 2016 per 10,000 WRA were: 11.4:10,000 compared to 11.5:10,000 in 2015
 - The total number of delivering physicians includes obstetricians, family medicine physicians and other types of physicians. This rate excludes resident physicians.
 - There is not a national data source to compare the total number of delivering physicians by state.
- Based on Iowa birth certificate data – the number of obstetricians/gynecologists who delivered an infant in 2016 per 10,000 WRA was: 4.1:10,000 compared to 3.9:10,000 in 2015.
 - Iowa cannot compare its rate to that of the Rayburn report because Iowa calculated its rate based on the number of obstetricians/gynecologists who actually delivered an infant vs. The American Congress of Obstetricians and Gynecologists (ACOG) membership.
- The Department identified 816³ unique providers who delivered at least one infant during calendar year 2016. In 2015, 799 unique providers were identified. The distribution of unique providers in calendar year 2016 were as follows:
 - 245 were obstetricians/gynecologists
 - 350 were family medicine physicians
 - 76 were other types of physicians⁴
 - 62 were resident physicians
 - 79 were nurse midwives

¹ This report remains the most current report on the rate of OB/GYNs per 10,000 WRA (11.28.17)

² Rayburn WF, Klagholz JC, Murray-Krezan C, Dowell LE, & Strunk AL. (2012) Distribution of American Congress of Obstetricians and Gynecologists Fellows and Junior Fellows in Practice in the United States. *Obstetrics and Gynecology*; 119 (5) 1017-1022.

³ Excludes n=4 physicians with missing or unknown information

⁴ Includes internal medicine physicians, pediatricians, general surgeons, maternal-fetal medicine and neonatal-perinatal specialists – excludes resident physicians.

Table 1: Iowa Physician Demographic Information⁵, 2016

| <i>Provider Type</i> | <i>Provider Count</i> | <i>Avg. Age, Delivering Males</i> | <i>Avg. Age Delivering Females</i> | <i>% Delivery Providers, Male</i> | <i>% Delivery Providers, Female</i> |
|--|-----------------------|---------------------------------------|--|---------------------------------------|---|
| <i>Obstetricians & Gynecologists</i> | 245 | 56.4 | 42.9 | 46.1 | 53.9 |
| <i>Family Medicine</i> | 350 | 47.0 | 41.1 | 58.0 | 42.0 |
| <i>Other Physicians⁶</i> | 76 | 52.4 | 41.1 | 73.7 | 26.3 |

Table 2: University of Iowa, Carver College of Medicine, Obstetrics & Gynecology and Family Medicine Residency Programs⁷

| <i>Specialty</i> | <i>2016 Residents</i> | <i>2014 Iowa residency graduates staying in Iowa to practice</i> |
|--|-----------------------|--|
| <i>Obstetricians & Gynecologists</i> | 9 | 2 |
| <i>Family Medicine</i> | 24 | 9 |

Table 3: Iowa medical school 2016 graduates obtaining a residency position in obstetrics & gynecology (OBGYN) or family medicine (FM) through the National Resident Matching Program⁸

| <i>University</i> | <i>OBGYN Residency Positions</i> | <i>OB Iowa Residency Positions</i> | <i>FM Residency Positions</i> | <i>FM Iowa Residency Positions</i> |
|--|--|--|---------------------------------------|--|
| <i>U of I Carver College of Medicine</i> | 9 | 2/9 (22%) | 24 | 9/24 (38%) |
| <i>Des Moines University of Osteopathic Medicine</i> | 8 | 0/8 (0%) | 49 | 16/49 (33%) |

⁵ Data source: Office of Statewide Clinical Education Programs, University of Iowa Carver College of Medicine

⁶ Includes maternal/fetal medicine specialists, emergency room physicians and general surgeons, and unspecified other physicians – excludes resident physicians.

⁷ University of Iowa Graduate Medical Education Program

⁸ Data sources - [University of Iowa 2016 Match Results](#) and [Des Moines University 2016 Match Results](#)

Table 4: Family Medicine Residents by Location and Year, 2016⁹

| <i>Residency Location</i> | <i>1st Year</i> | <i>2nd Year</i> | <i>3rd year</i> | <i>Total</i> |
|--|-----------------|-----------------|-----------------|--------------|
| <i>Cedar Rapids Medical Education</i> | 7 | 7 | 7 | 21 |
| <i>Genesis Health System</i> | 6 | 6 | 6 | 18 |
| <i>Broadlawns Medical Center</i> | 8 | 8 | 8 | 24 |
| <i>Iowa Medical Education Collaborative</i> | 6 | 6 | 6 | 18 |
| <i>Central Iowa Health System</i> | 6 | 5 | 6 | 17 |
| <i>University of Iowa Hospitals and Clinics</i> | 6 | 6 | 5 | 17 |
| <i>Mercy Medical Center (Mason)</i> | 6 | 6 | 6 | 18 |
| <i>Siouxland Medical Education Foundation</i> | 6 | 6 | 6 | 19 |
| <i>Trinity Bettendorf</i> | 1 | 3 | 2 | 6 |
| <i>Northeast Iowa Medical Education Foundation</i> | 6 | 6 | 6 | 18 |
| <i>Total</i> | 58 | 59 | 58 | 176 |

Table 5: Obstetrics & Gynecology Residents by Location and Year, 2016¹⁰

| <i>Residency Location</i> | <i>1st Year</i> | <i>2nd Year</i> | <i>3rd Year</i> | <i>4th Year</i> | <i>Total</i> |
|---|-----------------|-----------------|-----------------|-----------------|--------------|
| <i>University of Iowa Hospitals and Clinics</i> | 5 | 5 | 5 | 5 | 20 |

⁹ Data obtained from publicly available organizational websites.

¹⁰ Data source: University of Iowa Graduate Medical Education Program

Table 6: Deliveries by Provider Type, Iowa, 2012 -2016¹¹

| <i>Year</i> | <i>2012</i> | <i>2013</i> | <i>2014</i> | <i>2015</i> | <i>2016</i> |
|--|--------------------|---------------|----------------------|---------------|----------------------|
| <i>Provider Type</i> | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| <i>Obstetricians & Gynecologists</i> | 21,632 (58.9) | 22,377 (60.4) | 25,338 (67.2) | 27,171 (68.8) | 26,909 (68.8) |
| <i>Family Medicine</i> | 3,601 (9.8) | 3,847 (10.4) | 6,414 (17.0) | 6,721 (17.0) | 6,351 (16.3) |
| <i>Other Physician¹²</i> | 8,196 (22.3) | 8,169 (22.0) | 1,625 (4.3) | 1,578 (4.0) | 1,363 (3.5) |
| <i>Residents</i> | Data not available | | 744 (2.0) | 292 (0.7) | 418 (1.1) |
| <i>CNM/ARNP</i> | 2,322 (6.3) | 2,516 (6.7) | 3,221 (8.5) | 3,433 (8.7) | 3,691 (9.4) |
| <i>Unlicensed other¹³</i> | 163 (0.4) | 156 (0.4) | 360 (1.0) | 294 (0.8) | 344 (0.9) |
| <i>Total</i> | 36,696 | 37,065 | 37,702 ¹⁴ | 39,489 | 39,076 ¹⁵ |

Table 7: Unique licensed providers who delivered at least one infant, Iowa 2012-2016

| | <i>2012</i> | <i>2013</i> | <i>2014</i> | <i>2015</i> | <i>2016</i> |
|--|--------------------|-------------|-------------|-------------|-------------------|
| <i>Provider Type</i> | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| <i>Obstetricians & Gynecologists</i> | 189 (33.2) | 195 (35.0) | 230 (27.6) | 231 (28.9) | 245 (30.2) |
| <i>Family Medicine</i> | 235 (41.2) | 262 (47.0) | 328 (39.4) | 370 (46.3) | 350 (42.9) |
| <i>Other Physicians</i> | 31 (5.4) | 41 (7.4) | 93 (11.2) | 76 (9.5) | 76 (9.2) |
| <i>Residents¹⁶</i> | Data not available | | 94 (11.3) | 48 (6.0) | 62 (7.6) |
| <i>CNM/ARNP</i> | 56 (9.8) | 59 (10.6) | 97 (10.5) | 74 (9.3) | 79 (9.7) |
| <i>Total</i> | 570 | 557 | 832 | 799 | 812 ¹⁷ |

¹¹ Data sources: Office of Statewide Clinical Education Programs, University of Iowa Carver College of Medicine and IDPH – Bureau of Health Statistics

¹² Other physicians include maternal/fetal medicine specialists, emergency room physicians and general surgeons (who perform cesarean sections for family medicine patients) as well as those without an identifiable specialty.

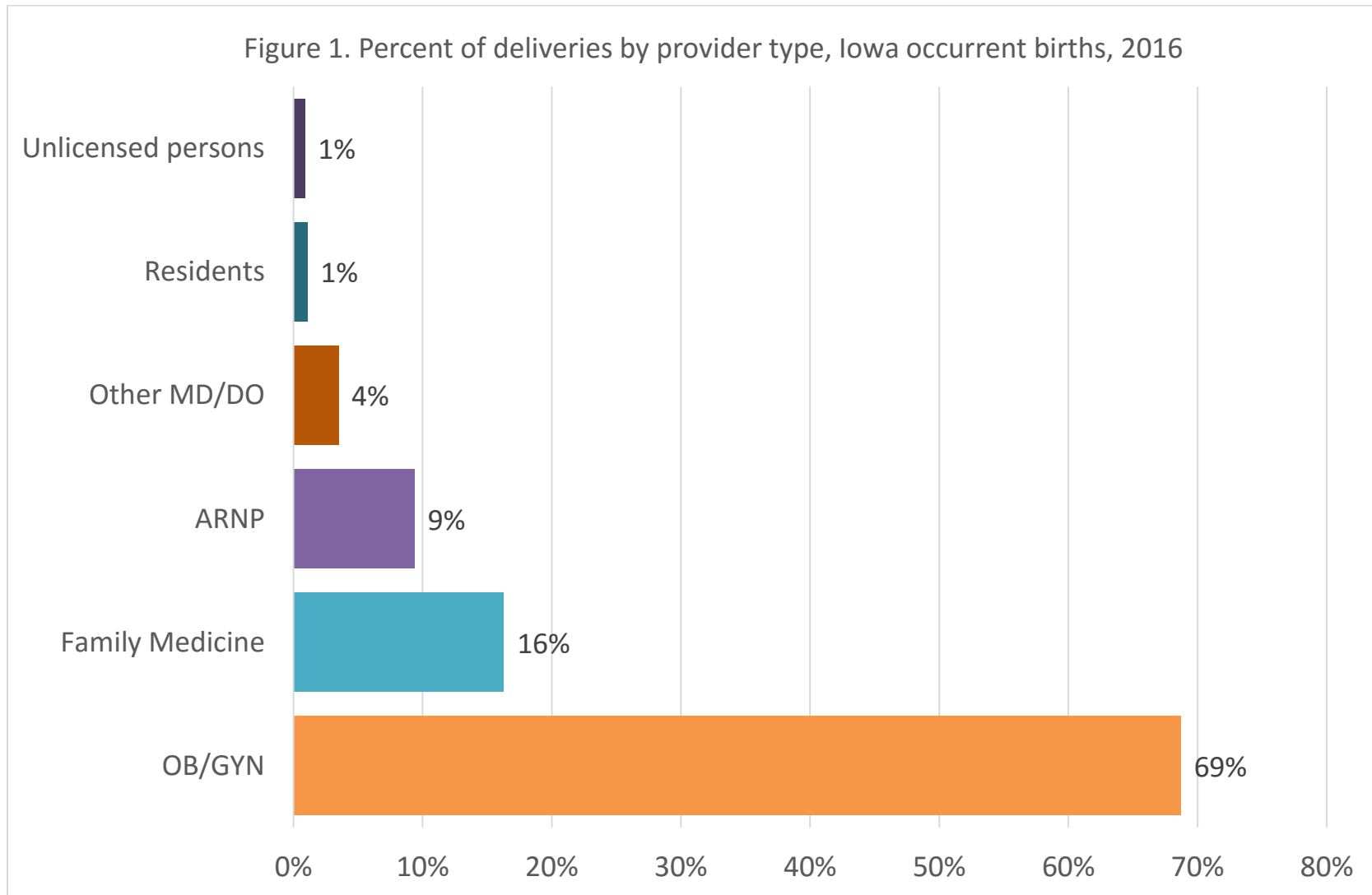
¹³ Unlicensed persons such as lay midwives, ambulance drivers and family members

¹⁴ n=37,702 occurrent births; n= 1 excluded due to unknown or missing information

¹⁵ n= 39,094 occurrent births; n=18 excluded due to unknown or missing provider information

¹⁶ Based on 2016 data, most residents reported their specialty to be family practice (n=53 vs. n=9). IDPH did not collect this information in previous years.

¹⁷Excludes n=4 physicians with missing or unknown information



Perinatal Regionalization in Iowa

Iowa's Regionalized Perinatal Care system includes criteria that stratify maternal and neonatal care into levels of complexity and recommends referral of women at risk for obstetrical complication and/or at risk to deliver an infant at high risk for complications to centers with the appropriate resources and personnel to address the complex needs of these women and newborns. This regionalized system of care helps ensure the quality of perinatal care throughout the state.

The current system has three distinct levels. Level 1 centers provide basic care; Level 2 centers provide specialty care, with further subdivisions within this level; Level 3 centers provide subspecialty care for critically ill newborns and high risk pregnant women.

For specific information about Iowa's Regionalized System of Care, refer to the [Guidelines for Perinatal Services, 8th Edition](#).

Table 8: Births by Hospital Level of Care, 2012-2016

| | <i>2012</i> | <i>2013</i> | <i>2014</i> | <i>2015</i> | <i>2016</i> |
|--|---------------|---------------|---------------|----------------------|---------------|
| <i>OB Level (# of hospitals ¹⁸)</i> | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| <i>Non-hospital births¹⁹</i> | 459 (1.3) | 467 (1.3) | 532 (1.4) | 432 (1.1) | 549 (1.4) |
| <i>Level 1 (54)</i> | 8,932 (24.2) | 9,342 (25.2) | 9,571 (25.4) | 9,746 (24.7) | 9,625 (24.6) |
| <i>Level 2 (13)</i> | 8,168 (22.3) | 8,209 (22.1) | 8,454 (22.4) | 8,964 (22.7) | 8,988 (23.0) |
| <i>Level 2 Regional (4)</i> | 4,465 (12.2) | 4,582 (12.4) | 4,646 (12.3) | 5,300 (13.4) | 5,111 (13.1) |
| <i>Level 2 Regional Neonatal (2)</i> | 4,373 (11.9) | 4,276 (11.5) | 4,260 (11.3) | 4,690 (11.9) | 4,333 (11.1) |
| <i>Level 3 (3)</i> | 10,299 (28.1) | 10,189 (27.5) | 10,240 (27.2) | 10,351 (26.2) | 10,488 (26.8) |
| <i>Total</i> | 36,696 | 37,065 | 37,703 | 39,483 ²⁰ | 39,094 |

¹⁸ Number of hospitals per level as of 12.09.15

¹⁹ Includes home births and births that occurred outside of hospital

²⁰ n=6 missing place of delivery for calendar year 2015

Figure 2. Deliveries by OBGYN physicians by county, occurrent births, Iowa 2016

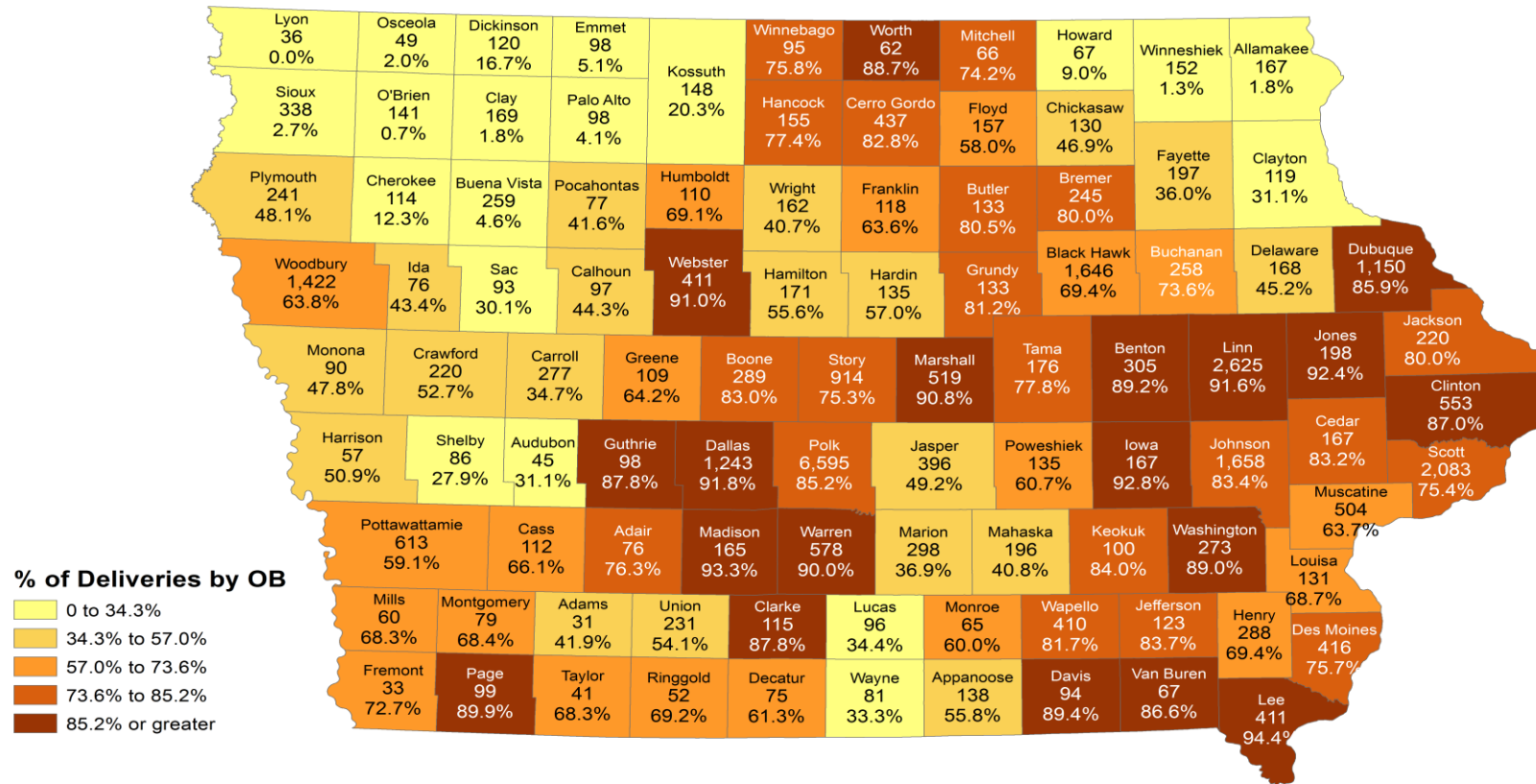


Figure 3. Deliveries by Family Practice physicians by county, occurrent births, Iowa 2016

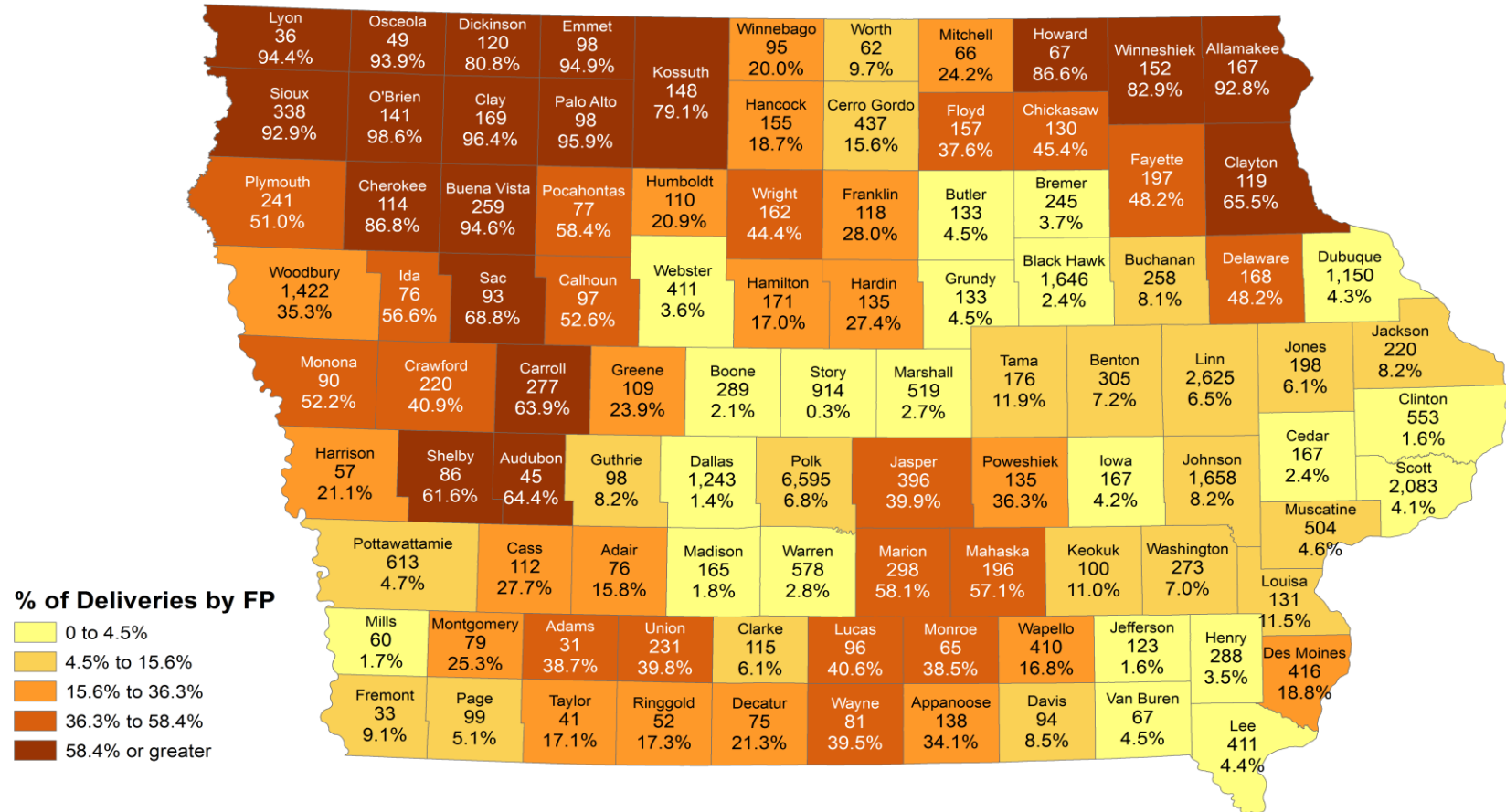


Figure 4. Deliveries by midwives and advanced practice registered nurses by county, occurrent births, Iowa 2016

